6KM6

Beam Power Tube

NOVAR TYPE

SPECIAL MULTIPLE-FIN PLATE STRUCTURE[a]
SPECIALLY FORMULATED ENVELOPE GLASS[b]

For Color-TV Horizontal-Deflection-Amplifier Applications

ELECTRICAL

Heater Characteristics and Ratings

Voltage (AC or DC)	6.3 ± 0.6	V
Current at 6.3 V	1.600	A
Maximum heater-cathode voltage:		
Heater negative with respect to cathode:		
Peak	200	V
Heater positive with respect to cathode:		
Peak	200	V
DC component	100	V

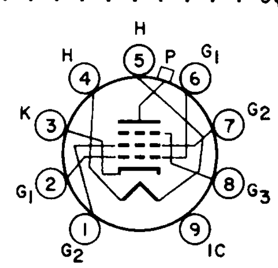
Direct Interelectrode Capacitances (Approx.)

Without external shield		
Grid No.1 to plate	1.2	pF
Input: G1 to (K, G3, G2, H)	22	pF
Output: P to (K, G3, G2, H)	9.0	pF

MECHANICAL

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	3.550 in
Seated Length	2.910 to 3.170 in
Diameter	1.438 to 1.562 in
Dimensional Outline	See *General Section*
Bulb	T12
Cap	Skirted Miniature (JEDEC No.C1-2 or C1-3)
Base	Large-Button Novar 9-Pin with Exhaust Tip (JEDEC E9-88)
Basing Designation for BOTTOM VIEW	9QL

Pin 1 - Grid No.2
Pin 2 - Grid No.1
Pin 3 - Cathode
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Grid No.1
Pin 7 - Grid No.2
Pin 8 - Grid No.3
Pin 9 - Do Not Use
Cap - Plate



CHARACTERISTICS

For the following characteristics, see Conditions

Amplification Factor	-	-	4	-	
Triode Connection[c]					
Plate Resistance	-	-	-	6000	Ω
Transconductance	-	-	-	9500	μmho
DC Plate Current	-	560[d]	-	80	mA

DC Grid-No.2 Current.	-	31[d]	-	2.4	mA
Cutoff DC Grid-No.1 Voltage .	-110	-	-	-42	V
Plate mA = 1					

Conditions

Heater Voltage.	6.3	6.3	6.3	6.3	V
Peak Positive-Pulse Plate Voltage[e]	6500	-	-	-	V
DC Plate Voltage.	-	60	140	140	V
DC Grid-No.3 Voltage.	30	30	0	30	V
DC Grid-No.2 Voltage.	140	140	140	140	V
DC Grid-No.1 Voltage.	-	0	-24.5	-24.5	V

MAXIMUM RATINGS, DESIGN-MAXIMUM VALUES

For operation in a 525-line, 30-frame system

DC Plate Supply Voltage	770	V
Peak Positive-Pulse Plate Voltage[e].	6500	V
Peak Negative-Pulse Plate Voltage	1500	V
DC Grid-No.3 Voltage[f]	75	V
DC Grid-No.2 (Screen-Grid) Voltage.	220	V
Peak Negative-Pulse Grid-No.1 (Control-Grid) Voltage.	330	V
Cathode Current		
Peak.	950	mA
Average	275	mA
Grid-No.2 Input	3.5	W
Plate Dissipation[g].	20	W
Envelope Temperature.	240	°C
At hottest point on bulb surface		

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance		
For grid-No.1-resistor-bias operation	0.47	MΩ
For plate-pulsed operation.	10	MΩ

[a] Designed to minimize secondary-electron emission from plate and eliminate "knee" discontinuities in zero-bias region.

[b] Designed to reduce glass problems after long periods of high-voltage and elevated temperature operation.

[c] With grid No.3 and grid No.2 connected, respectively, to cathode and plate at socket.

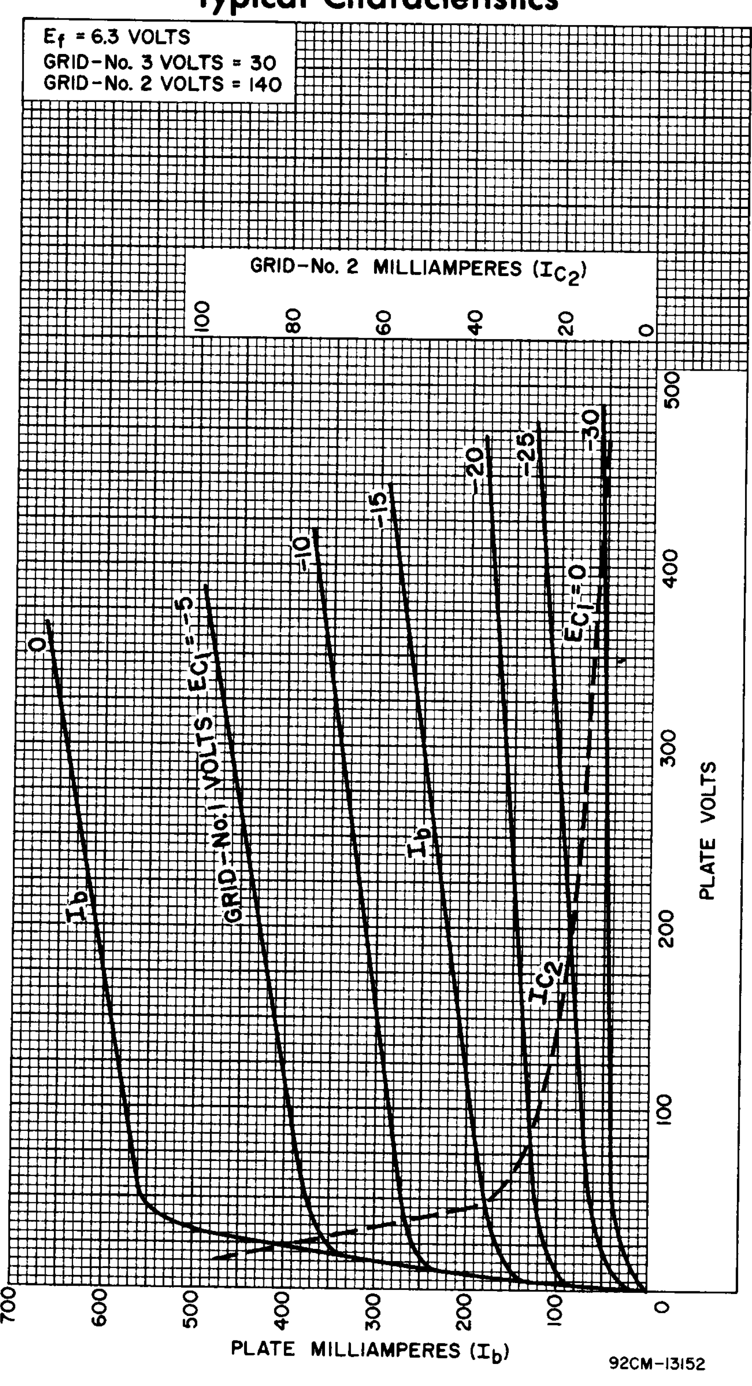
[d] This value can be measured by a method involving a recurrent waveform such that the Maximum Ratings of the tube will not be exceeded.

[e] This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.

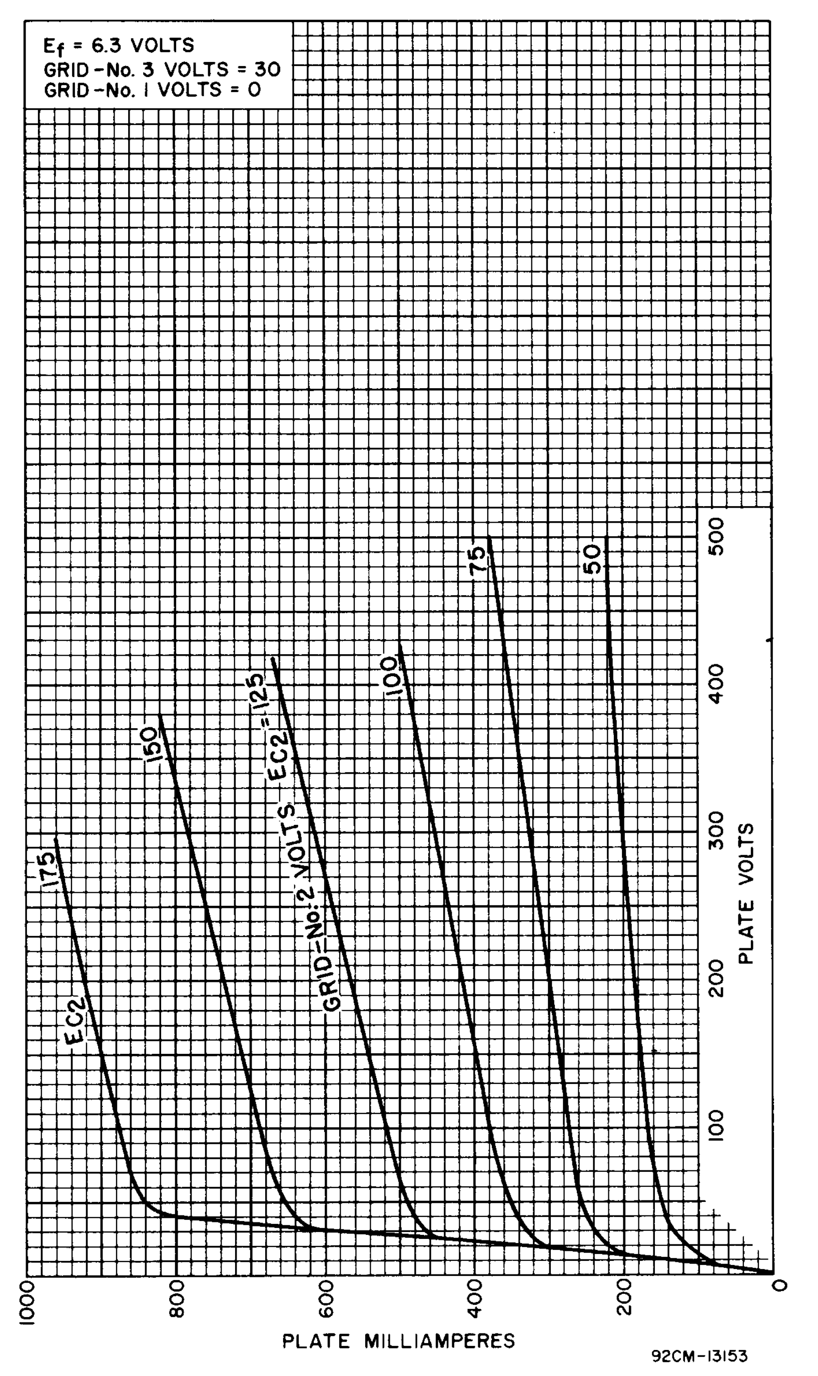
[f] In horizontal-deflection-amplifier service, a positive voltage may be applied to grid No.3 to reduce interference from "snivets" which may occur in both vhf and uhf television receivers. A typical operating value for this voltage is 30 volts.

[g] An adequate bias resistor or other means is required to protect the tube in the absence of excitation.


Typical Characteristics


Ef = 6.3 VOLTS
GRID-No. 3 VOLTS = 30
GRID-No. 2 VOLTS = 140
GRID-No. 2 MILLIAMPERES (IC2)
100
80
60
40
20
0
GRID-No.1 VOLTS EC1 = -5
0
-10
-15
-20
-25
-30
EC1 = 0
Ib
Ib
IC2
PLATE VOLTS
500
400
300
200
100
0
PLATE MILLIAMPERES (Ib)
700
600
500
400
300
200
100
92CM-13152

Typical Plate Characteristics



RADIO CORPORATION OF AMERICA
Electronic Components and Devices Harrison, N. J.